

## DEFENSE NUCLEAR AGENCY

WASHINGTON, D.C. 20305

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1 4 MAY 1974

Dr. Martin B. Biles, Director Division of Operational Safety U.S. Atomic Energy Commission Washington, D.C. 20545

Dear Dr. Biles,

We are pleased to present our comments upon "Report by the Task Group on Recommendations for Cleanup and Rehabilitation of Enewetak Atcll" dated 19 April 1974 and sent to us by you on 2 May 1974. We take strong exception to the recommendations of this Report and the philosophies on which these recommendations are based. On the other hand, we commend the AEC upon the thorough scientific work in this Report and in the backup volumes NVO-140 on the Enewetak radiological survey.

In addition to being troubled about regulatory matters, we disagree with the recommendations of this Report because it is not in accord with wishes and probable needs of the Enewetak people. As a result of U.S. actions, parts of their lands were altered and the Enewetak people were displaced to accommodate U.S. weapons testing. We should now make every effort to allow them a living pattern to The radiological and other fit what they view to be their needs. safety conditions upon their return should apply to those local conditions, not necessarily those of the U.S. population with its different radiological conditions and its greater uncertainties of exposures. In fact FRC 1, para 7.7 and 7.8, emphasizes that "there is no single permissible or acceptable level of exposure without regard to the reasons for permitting the exposure." Within this context, the numerical values should be considered as guides which might be appropriate for a particular action under certain circumstances. Since permissible levels of exposure for the Enewetak conditions are not clearly established, the U.S. government function for Enewetak would be primarily to assure that national policies are not being exceeded

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1 4 MAY 1974

DDOA Dr. Martin B. Biles

or that no harmful effects would result from the proposed action. Contrary to this, the recommendations of this AEC Report can be viewed as non-compliance with the needs that the Enewetak people have clearly stated, specifically to occupy Enjebi Island. Unfortunately, the justification for these restrictions seem to be an unduly restrictive application of criteria that are largely arbitrary and probably inapplicable.

First let us consider the applicability of criteria. radioactive. contamination being beyond our ability to turn off or wholly eliminate, it is an uncontrolled localized contamination event in the definition of the Federal Radiation Council (FRC). Being the release of radioactive material from nuclear explosions of many years ago, the Enewetak situation is Category III of p. 30 of FRC Staff Report No. 7. For this category, protective action is to be considered on a case-by-case basis (p. 38). Any situation resulting in a bonemarrow dose greater than 0.5 rad per year is to be appropriately evaluated. FRC Report No. 7 does not include any criterion for bone dose for this Category III, but the present AEC Report numerically uses bone dose criteria to advise against the desired return of the Enewetak people to the island of Enjebi and to advise against full use of other islands. This particular case of Enjebi should instead be individually evaluated on such bases as relative risks or cost vs. benefit that are recurrently requested in FRC reports. The present AEC Report seems wholly inadequate in such evaluations.

Leaving aside this genuine question of whether quantitative application of criteria are grounds for decisions, one can review the bases of the numerical values of the radiological criteria on p. 5 of the present AEC Report. These are later used in the AEC Report to restrict the Enewetak people. The Federal Radiation Council Report No. 1 establishes an occupational dose criteria which has been reduced from the level at which biological damage occurs by a factor of 10. Both the Federal Radiation Council and the International Commission on Radiation Protection further reduce the dose levels for individuals in the population from the occupational level by a factor of 10. For Enewetak, the AEC recommended exposure levels for individuals have been arbitrarily reduced by another factor of 2. This reduction results in an overall reduction from the levels at which minor biological effects have been observed by a factor of 200. Further the 4 rems limit in 30 years for gonadal exposure, an 80% reduction from the recommended genetic exposure, does not seem to apply since the half lives of the isotopes of concern are approximately 30 years. This then does not provide the recurrent genetic dose for future generations beyond the present generation which will return.

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Dr. Martin B. Biles

Based on data in Tables 1, 2, 3 and 4 of the report it is inconsistent to exclude the people from Enjebi. In Table 1 with a living pattern (D) which requires importation of pandanus and breadfruit (III) the 30 year whole body dose is 4.4 rem. By importing pandanus, breadfruit, coconut and tacca (IV) the dose becomes 3.7 rem. This is lower than your 4 rem criteria. In Table 2, the same conditions apply. If Table 3 were used, and the FRC exposures were permitted to apply nothing would need to be done (Living pattern D, Current conditions I). Under AEC guides the importation of pandanus and breadfruit would be required. By going to Table 4 and using the guidance applicable to Category III, FRC Report No. 7 it appears that Living Pattern D under current conditions would be applicable. Even with the more restrictive AEC interpretation, Living Pattern D with the importation of pandanus, breadfruit as in IV would apply.

Your present AEC Report rejects an undelayed occupation of Enjebi, as is desired by the Enewetak people, even though the reduction factor of two in your proposed criteria is vulnerable to accusations that this factor conveniently delays the desired habitation, particularly in view of (1) the unusually well-measured and well-known radiological situation. for Enewetak, (2) the small likelihood of other radiation sources being introduced into Enewetak at a rate faster than the decay of present radioactivity, (3) the questionable validity of applying any criteria on bone dose, and (4) the lack of cost-benefit or relative risk analyses in this AEC Report.

Instead of the restrictive approach in the present AEC Report, a broader range of rehabilitation possibilities should be available to the Enewetak people for their judgment. The consequences of each of these possibilities should be clearly made with the U.S. role being to temper their judgment on the basis of well-established radiological effects. To enable such choices to be made objectively, the particularly prejudicial statements in your present AEC Report should be modified accordingly. Among these are:

- p. 22: statement that corrective actions ".... would constitute an experiment involving Enjebi people"
- p. 23: statement about "Heroic actions would be required to reconstitute the remaining soil ...." on Enjebi after corrective actions
- p. 23: statement about a period as long as 16 to 20 years (two eight to ten year periods) .... before the island could support its inhabitants"

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p. 25: statement about being ".... unable to determine any way in which exposures can be brought within the acceptable criteria, that is both reliable and feasible, in order to resettle Enjebi ...."

p. III-1: the opinion that "... recommendations should be specific and unequivocal ...." for methods of resettling Enewetak Atoll.

1 Encl
Detail Comments on
Task Group Recommendations

Copy furnished: DASTA, DOI ASD(ISA)

Warm regards,

Major General, USA

Deputy Director

(Operations and Administration)

### **DEFENSE NUCLEAR AGENCY** WASHINGTON, D.C. 20305

7 June 1974

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Dr. Dixy Lee Ray Chairman, US Atomic Energy Commission Washington, D. C. 20545

Dear Dr. Ray,

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Dr. Ray,

Soon the AEC staff will present to the Commission recommendations cleanup and rehabilitation of Enewetak. DoD has charged the Defense for cleanup and rehabilitation of Enewetak. DoD has charged the Defense Nuclear Agency with the responsibility for the cleanup phase. How we go about the cleanup will depend on the radiological standards established by the AEC.

I am concerned with several aspects of this project. Of course, our primary concern must be the health and welfare of the Enewetak people. If this were not so there would be no reason for the entire effort and the United States could simply maintain the status quo. However, this major concern is complicated by diverse objectives:

- assurance that no Enewetakese receives radiation doses which will adversely affect him or future generations,
- b. accommodation of the strong desire of the Enewetakese to return to Enjebi, one of the islands with a level of radioactivity which some say cannot be reduced to acceptable levels for residence and agriculture.

There is some controversy over what constitutes an acceptable level. Indeed, the people themselves might well prefer a small risk to denial of their cherished home. Important in this respect is a doubt (at least in my mind) that we can keep the Enewetakese from living on Enjebi once they are resettled on the other nearby islands.

I understand your staff will present to the Commission some arguments we have raised; thus, the Commission should receive the advantage of different viewpoints. I want to assure you that I will not contest the standards recommended by the Commission. However, I hope they will consider the entire problem: biological - political - and fiscal, as well as the social and economic effects on the Enewetakese people if the standards are such that we cannot resettle them on one of their major home islands. Finally, I am sure that the Commission will want to assure itself that marginal health benefits do not override the substantial benefits the Enewetakese would enjoy from more complete use of their land.

Once these decisions are reached they must be explained to the Enewetakese. They must understand any constraints as well as the fact the project is subject to Congressional approbation. Perhaps that might prompt the trip I previously suggested we make jointly to Enewetak. Of course, we would also want to invite the appropriate official from the Department of the Interior.

I will look forward to discussion of this matter after the Commission has considered it. Meanwhile, the staff and resources of DNA are available if further information is required in the decision-making process.

Regards,

WARREN D. JOHNSON

Lieutenant General, USAF

Director



# United States Department of the Interior

#### OFFICE OF THE SECRETARY WASHINGTON, D.C. 20240

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Dear Dr. Biles:

Thank you for the latest version of the Task Group report for Enewetak Atoll. We found that although the Enjibe situation was more fully discussed and various options were explored, the recommendations have not substantially changed from your report of February 1, 1974.

Although we are disappointed that the return to Enjibe appears to be postponed for an undetermined time, we defer to the technical experts as to the safety aspects.

We look forward to a final report and recommendations from the Atomic Energy Commission along with an Environmental Impact Statement which will enable the Defense Nuclear Agency, Department of the Interior, and Atomic Energy Commission to undertake the cleanup, rehabilitation and resettlement before too much more time passes.

I want to take this opportunity to express my appreciation to the Task Group and advisors for their diligent efforts put forth on this project.

Sincerely yours

Carpente

Director of Territorial Affairs

Martin B. Biles Director Division of Operational Safety U.S. Atomic Energy Commission Washington, D.C. 20545

